

REMARKS

Claims 47, 75, and 76 have been amended. Claim 76 has been amended to recite a destination address. Claims 47-55, 57-59, 61-65, and 67-86 are pending in the application and are presented for consideration and examination in view of the foregoing amendments and the following remarks. No new matter is added by the amendments.

Discussion of Rejection Under 35 U.S.C. § 112

Claims 47-55, 57-59, 61-61, and 67-86 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, Claim 47 recites “a processor converting the received audio signal into a plurality of single-channel audio signals, each single-channel audio signal representing one of the multiple channels and being assigned to either a first group or a second group of audio signals, each group comprising at least one of the single-channel audio signals; a power amplifier module configured to amplify only the first group of audio signals; and a transmitter configured to transmit the unamplified second group of audio signals along with at least one destination address to a plurality of speakers via a network, the destination address identifying one of the plurality of speakers for broadcasting at least one of the audio signals in the second group.” The Examiner asserted that the underlined limitations of Claim 47 are not supported by the specification. Applicant respectfully disagrees.

Applicant respectfully submits that adequate description requirement does not require the written description to be in *ipsis verbis* (i.e., in the same words) (*see* M.P.E.P. § 2163, p. 2100-180, reciting “[i]f a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is **not explicitly described** in the specification, then the **adequate** description requirement is met”; *Vas-Cath*, 935 F.2d at 1563, 19 USPQ2d at 1116; *Martin v. Johnson*, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972) (stating “the description need not be in *ipsis verbis* [i.e., ‘in the same words’] to be sufficient”)).

Figures 11C and 11D show a DSP module 516 converting a multiple-channel audio signal into multiple signals of a single audio channel. “The components of the center channel loudspeaker 1142a/1142b may comprise a DSP module 516 for multiple channels, a PWM converter/amplifier module 520, a power stage module 522 for the center channel, and an IR

transmitter 1101. Depending on the channel format available from the source 102, the DSP processes the audio signal into the selected channel configuration.” See paragraph [0108] of the publication of the present application.

Figures 11C and 11D further show that some of the multiple single-channel signals are sent to an amplifier for amplification and the other single-channel signals are wirelessly transmitted by a transmitter via a network to a plurality of speakers without being amplified. “The center channel loudspeaker 1142 illustrated in Figures 11C and 11D provides audio channel signals to the power stage modules 524(b)-(n). The center channel loudspeaker 1142 illustrated in Figures 11C and 11D further provides two audio channels to the IR transmitter 1101. The two channels provided to the IR transmitter 1101 are wireless transmitted to the loudspeakers 1144(a), 1144(b0).” See paragraph [0118] of the publication of the present application. As such, the present application adequately discloses “a first group or a second group of audio signals” and “a power amplifier module configured to amplify only the first group of audio signals; and a transmitter configured to transmit the unamplified second group of audio signals to a plurality of speakers via a network.”

The present application also describes that the IR transmitter 1101 may send a destination address with an audio signal to the plurality of speakers to selectively enable one of them to play the audio signal. “Figure 11 ... show[s] an infrared (IR) transmitter 1101 and a loudspeaker 1115 connected using an IR network.” See paragraph [0091] of the publication of the present application. “In one embodiment, the IR transmitter 1101 is coupled to a headphone 1117 via the IR network ... The transmitter is configured via a switch 1122 to create an address to enable operation of the speakers or headphones. For example, when the switch is set to headphones, only the headphones will play. When the switch 1122 is set to speakers, only the speakers receiving the audio signal will play. The switching can be accomplished by many alternative means such as by creating an address that will be transmitted along with the audio signal.” See paragraph [0093] of the publication of the present application. Paragraphs [0126] and [0127] of the publication of the present application further describe that the headphone broadcasts the received audio signal only if the destination address corresponds to its own address. As such the present application adequately discloses “to transmit the unamplified second group of audio signals along with at least one destination address to a plurality of speakers via a network, the

destination address identifying one of the plurality of speakers for broadcasting at least one of the audio signals in the second group.”

In view of the above, Applicant respectfully requests withdrawal of the foregoing claim rejection.

Discussion of Drawing Objection

The drawings are objected to for failing to show every feature specified in the claims. In particular, the Examiner took the position that features that are not shown in the drawings include “a processor converting the received audio signal into a plurality of single-channel audio signals, each single-channel audio signal representing one of the multiple channels and being assigned to either a first group or a second group of audio signals, each group comprising at least one of the single-channel audio signals; a power amplifier module configured to amplify only the first group of audio signals; and a transmitter configured to transmit the unamplified second group of audio signals along with at least one destination address to a plurality of speakers via a network, the destination address identifying one of the plurality of speakers for broadcasting at least one of the audio signals in the second group.” Applicant respectfully disagrees.

As discussed above with regard to the § 112 rejection, Figures 11C and 11D adequately show these features. In particular, Figures 11C and 11D show a DSP module 516 converting a multiple-channel audio signal into multiple signals of a single audio channel. The power stage modules 524(a)-(n) amplify some of the single-channel signals from the DSP 516. The IR transmitter 1101 transmits the rest two of the single-channel signals from the DSP 516 to speakers 1144(a) and 1144(b). The corresponding description of Figures 11C and 11D teaches that the IR transmitter 1101 sends a destination address with an audio signal to the plurality of speakers to select one of them to play the audio signal.

Accordingly, Applicant respectfully submits that Figures 11C and 11D show the feature “a processor converting the received audio signal into a plurality of single-channel audio signals, each single-channel audio signal representing one of the multiple channels and being assigned to either a first group or a second group of audio signals, each group comprising at least one of the single-channel audio signals; a power amplifier module configured to amplify only the first group of audio signals; and a transmitter configured to transmit the unamplified second group of audio

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signals along with at least one destination address to a plurality of speakers via a network, the destination address identifying one of the plurality of speakers for broadcasting at least one of the audio signals in the second group.”

In view of the above, Applicant respectfully requests withdrawal of the foregoing objection to drawings.

Claims Rejections under 35 U.S.C. § 103(a)

Independent Claims 47 and 75 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Swix et al. (US 2004/0250273) and Yasuhara (US 7,190,798). Independent Claim 76 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shdema (US 2002/0072816) and Yasuhara.

Amended independent Claim 47 recites, for example, “a processor converting the received multi-channel audio signal into a plurality of single-channel audio signals, each single-channel audio signal representing one of the multiple channels and being assigned to either a first group or a second group of audio signals, each group comprising at least one of the single-channel audio signals; a power amplifier module configured to amplify only the first group of audio signals; and a transmitter configured to transmit the unamplified second group of audio signals along with at least one destination address to a plurality of speakers via a network, the destination address identifying one of the plurality of speakers for broadcasting at least one of the audio signals in the second group.” Amended independent Claims 75 recites “means for converting the received multi-channel audio signal into a plurality of single-channel audio signals, each single-channel signal representing one of the multiple channels and being assigned to either a first group or a second group of audio signals, each group comprising at least one of the single-channel audio signals; means for amplifying only the first group of audio signals; and a transmitter configured to transmit the unamplified second group of audio signals along with at least one destination address to a plurality of speakers, via a network, the destination address identifying one of the plurality of speakers for broadcasting at least one of the audio signals in the second group.” None of Swix and Yasuhara, either alone or in combination, discloses these features.

Swix discloses a broadband multimedia gateway which receives a multimedia signal via a tuner/demodulator (102) from sources such as cable television, satellite television, or terrestrial broadcast television. The gateway is also connected to various information appliances via different communication links. The communication links include a broadband link (95), a Home-PNA port (141), a home RF transceiver (142), an IEEE 802.11 transceiver (143), and a Bluetooth transceiver (144). In operation, the gateway selects to receive a multimedia signal from one of the sources. The gateway then sends the selected multimedia signal to one of the information appliances via one of the communication links. See Figure 1 and paragraphs [0035]-[0044] of Swix.

Yasuhabara relates to a vehicle audio system comprising a plurality of audio sources such as cassette, radio, and CD. A front control selects one of the audio sources as a front audio source to be played in the front seat area. The audio signal from the front audio source is amplified before being sent to speakers for broadcasting. A rear control selects one of the audio sources as a rear audio source to be played in the rear seat area. The signal from the rear audio source is sent to headphones for broadcasting without being amplified.

Swix does not teach “converting the received multi-channel audio signal into a plurality of single-channel audio signals, each single-channel signal representing one of the multiple channels and being assigned to either a first group or a second group of audio signals, each group comprising at least one of the single-channel audio signals.” In rejecting Claims 47 and 75, the Examiner has identified the different communication links (95, 141, 142, 143, and 144) as corresponding to the “multiple channels” recited in the Claims 47 and 75’s limitation of “the multi-channel audio signal being encoded in a channel format having multiple channels.”

As disclosed in Swix, the different communication links (95, 141, 142, 143, and 144) are physical communication links connecting the gateway to the information appliances. However, the “multiple channels” recited in Claims 47 and 75 are part of the “audio signal” as recited in Claims 47 and 75. In contrast, the communication links of Swix are not part of the multimedia signals, but a physical channel over which the multimedia signal is transmitted. Accordingly, the different communication links of Swix can not be the “multiple channels” as proposed by the Examiner.

Further, the gateway in Swix, does not change the received multi-media signal. Instead, the gateway merely forwards the received multimedia signal to the selected information appliance. Therefore, Swix does not teach “converting the received multi-channel audio signal.”

Yasuhsara also does not teach “converting the received multi-channel audio signal into a plurality of single-channel audio signals, each single-channel signal representing one of the multiple channels and being assigned to either a first group or a second group of audio signals, each group comprising at least one of the single-channel audio signals.” In rejecting Claims 47 and 75, the Examiner has identified several independent multimedia signals (a DVD signal 4, an AM/FM radio signal 82, a cassette tape signal 83, a CD signal 84) as corresponding to “the plurality of single-channel audio signals” each representing one of the multiple channels in the “received multi-channel audio signal.”

Each of the DVD signal 4, the AM/FM radio signal 82, the cassette tape signal 83, and the CD signal 84 is an independent multi-channel audio signal. They are not “single-channel audio signals.” In addition, they are not single-channel audio signals each representing one of the multiple channels in the “received multi-channel audio signal.”

Yasuhsara merely teaches selecting one of the several multimedia signals (4, 82, 83, 84) as the audio source. Yasuhara does not teach converting the multimedia signal into multiple single-channel audio signals. Therefore, Yasuhara does not teach “converting the received multi-channel audio signal.”

Furthermore, neither Swix nor Yasuhara teaches “transmit the unamplified second group of audio signals along with at least one destination address to a plurality of speakers via a network, the destination address identifying one of the plurality of speakers for broadcasting at least one of the audio signals in the second group.” The Examiner admitted that Swix does not teach this feature, but then relied on Yasuhara for teaching it, citing col. 10, line 25 – col. 11, line 67 and col. 15, line 38 to col. 16, line 67 as support.

The portion in Yasuhara cited by the examiner merely teaches turning on a rear power switch (22) to send unamplified sound from the rear audio source to headphones 12 and 13, or turning off the switch so that no sound is sent to these headphones. It does not teach sending audio signals “along with at least one destination address to a plurality of speakers.” Further, Yasuhara does not need a destination address. The different parts in Yasuhara are connected via

physical wired connections, except that the rear control 3 sends audio signals to a wireless headphone 13 via a wireless link. Yasuhara even does not teach transmitting the audio signals “to a plurality of speakers via a network.” Since the headphone 13 is the only device which receives the audio signal via the wireless link, Yasuhara does not need to send the audio signal with a destination address.

Shdema does not cure these deficiencies. For example, Shdema does not teach “converting the received multi-channel audio signal into a plurality of single-channel audio signals, each single-channel signal representing one of the multiple channels and being assigned to either a first group or a second group of audio signals, each group comprising at least one of the single-channel audio signals.” The A/D converter 144 simply converts an analog signal into a digital signal. The sampling rate converter 146 converts a sampling rate of the input digital stream to a selected sampling rate. Neither part converts a multi-channel signal into multiple single-channel signals.

Accordingly for at least these reasons, independent Claims 47 and 75 would not have been obvious in view of Swix and Yasuhara. Therefore, Applicant respectfully submits that Claims 47 and 75 are allowable over Swix and Yasuhara.

Independent Claim 76 has been amended to recite a “destination address identifying one of the plurality of speakers for broadcasting at least one of the audio signals in the second group” and “a processor configured to decode the received multi-channel audio signal into a plurality of single-channel audio signals, each single-channel audio signal representing one of the multiple channels.” Therefore, for the same reason stated above with regard to Claims 47 and 75, Claim 76 would not have been obvious in view of Shdema and Yasuhara.

Withdrawal of the rejection is respectfully requested.

Dependent Claims

Claims 47-55, 57-59, 61-65, and 67-86 are pending in the application. Dependent Claims 48-55, 57-59, 61-65, 67-74, and 77-86 are depend directly or indirectly from Claims 47 and 76 and, thus, are patentable for at least the same reasons that the claim from which they depend is patentable over the art of record. Therefore, allowance of Claims 48-55, 57-59, 61-65, 67-74, and 77-86 is respectfully requested.

No Disclaimers or Disavowals

To the extent that any amendments or characterizations of the scope of any claim or referenced art could be construed as a disclaimer of any subject matter supported by the present disclosure, the Applicant hereby rescind and retract such disclaimer. Accordingly, the listed or referenced art in the related patents may need to be re-visited.

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

CONCLUSION

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action are inapplicable to the present claims. Accordingly, issuance of a Notice of Allowance is earnestly requested.

Any remarks in support of patentability of one claim should not be imputed to any other claim, even if similar terminology is used. Any remarks referring to only a portion of a claim should not be understood to base patentability on solely that portion; rather, patentability must rest on each claim taken as a whole.

Applicant has not presented all arguments concerning whether the applied references can be properly combined in view of the clearly missing elements noted above, and Applicant reserves the right to later contest whether a proper reason exists to combine these references and to submit evidence relating to secondary considerations supporting the non-obviousness of the securement devices recited by the pending claims.

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The undersigned has made a good faith effort to respond to all of the noted rejections and to place the claims in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if an issue requires clarification, the Examiner is respectfully requested to call Applicant's attorney, James Herkenhoff at (619) 687-8663 (direct line), in order to resolve any such issue promptly.

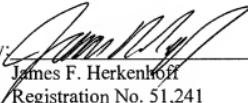
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Respectfully submitted,

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